ET55S4744850US

SCANNED #

100

FIG. 1A
(PRIOR ART)

120

FIG. 1B
(PRIOR ART)

Atty. Docket # AUS920010508US?
Hsu
Method a.. system for producing dynamically dete... ..ed drop shadows
in a three-dimensional graphical user interface

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FIG. 2A
(PRIOR ART)

FIG. 2B
(PRIOR ART)

FIG. 2C
(PRIOR ART)

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Method and system for producing dynamically determined drop shadows
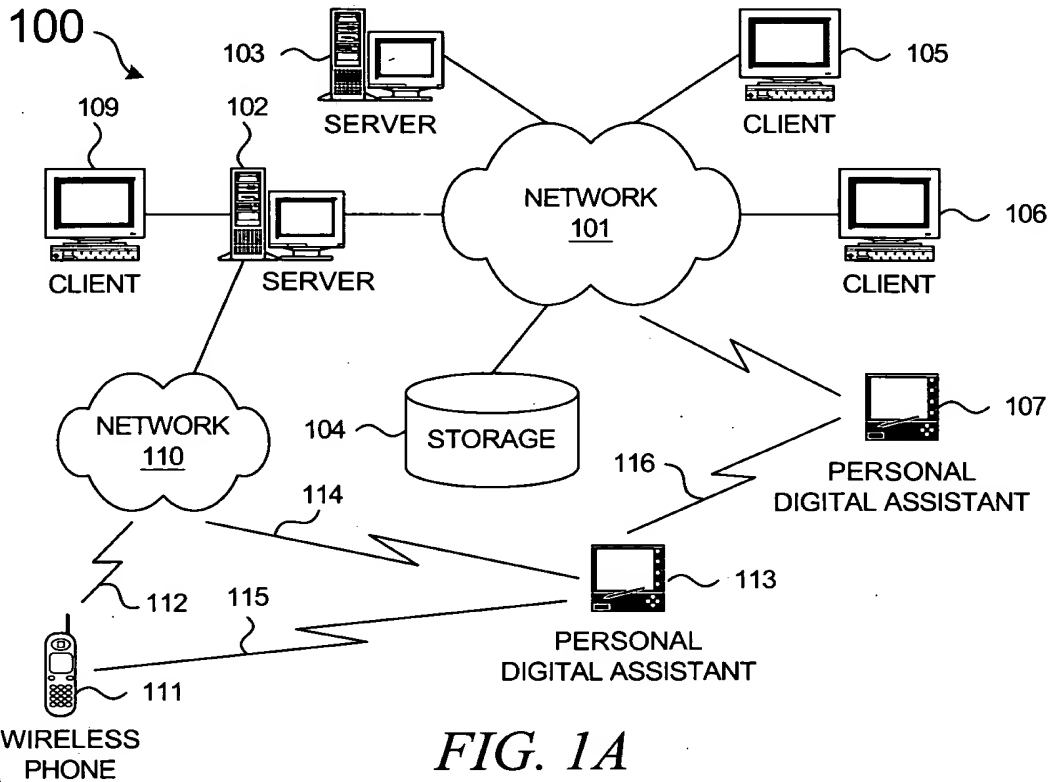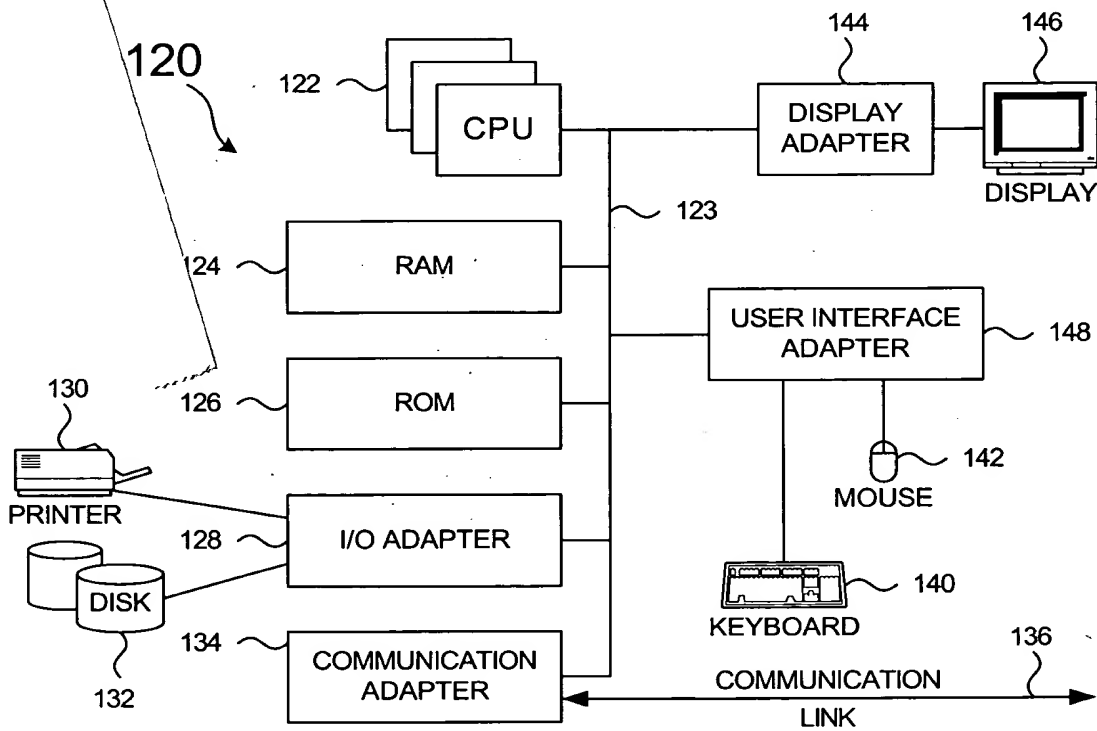in a three-dimensional graphical user interface

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Z-AXIS

251

X-AXIS

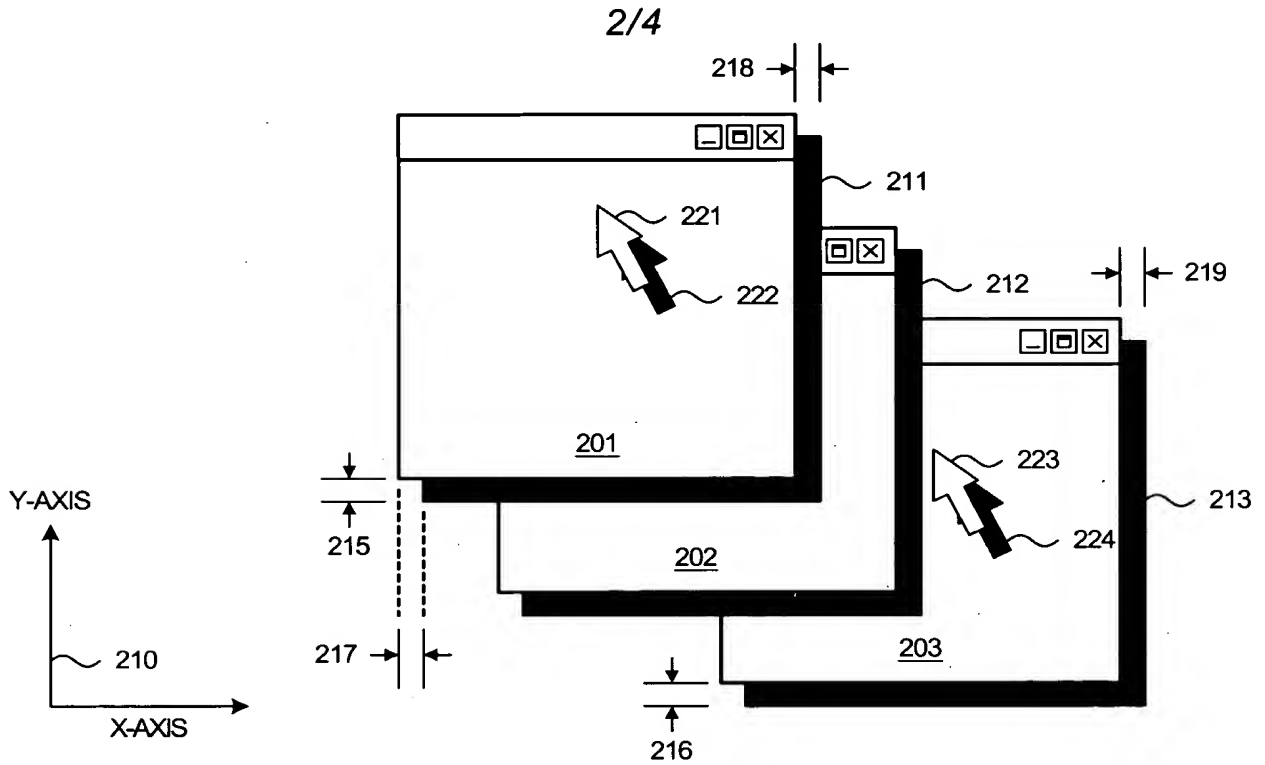## FIG. 2D
(PRIOR ART)

Z-AXIS

252

Y-AXIS

FIG. 2E
(PRIOR ART)

333

315 ~ 311

321

312

334

322

317

301   314

323   324

~ 313

316

302   335

303

Y-AXIS

Z-AXIS

331

X-AXIS

310

←336→

332

FIG. 3A

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Method and system for producing dynamically determined drop shadows
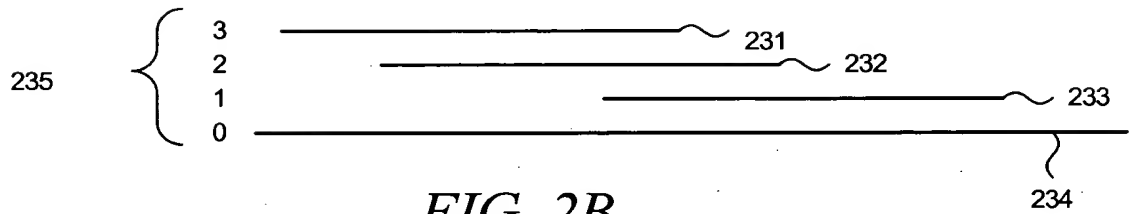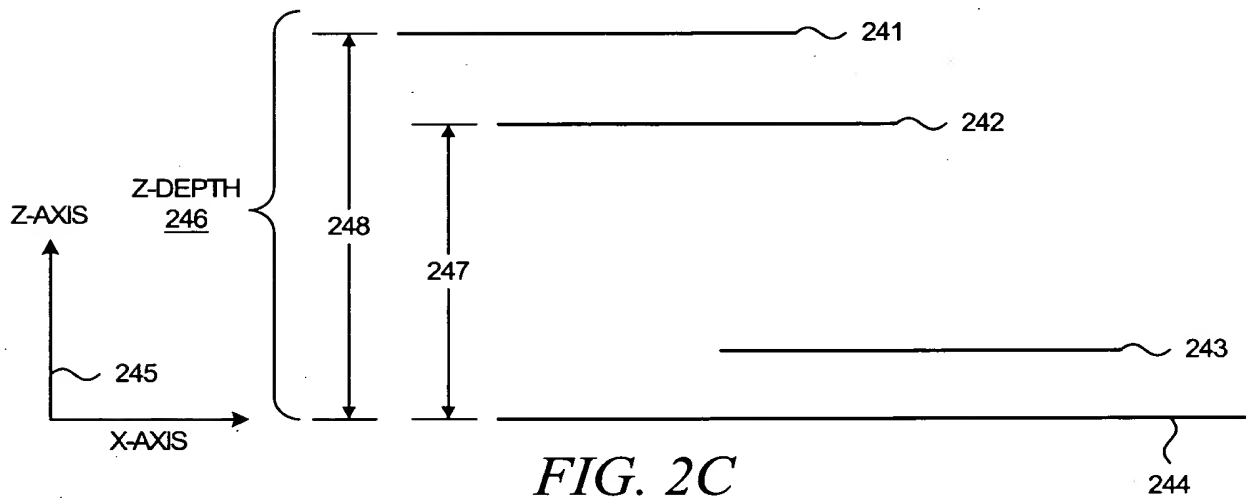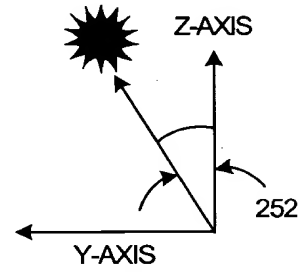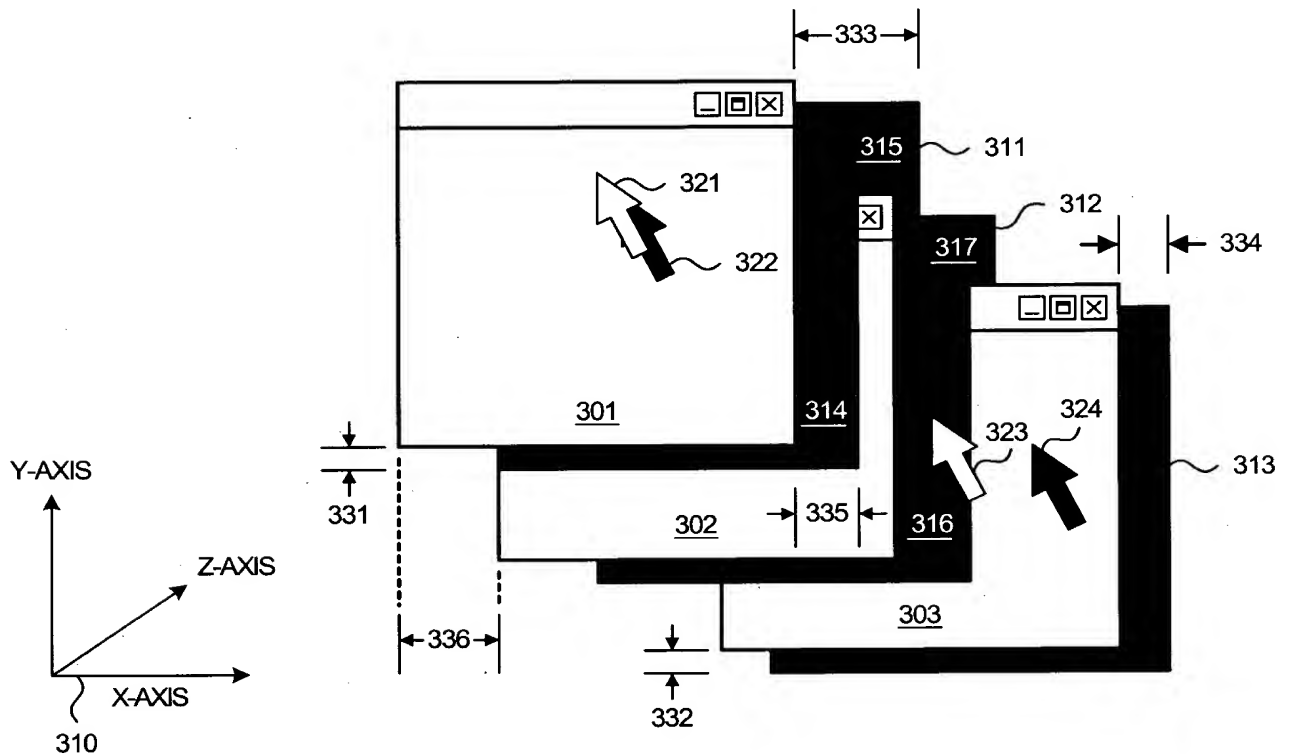in a three-dimensional graphical user interface

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BEGIN

GENERATE SHADOW OBJECT
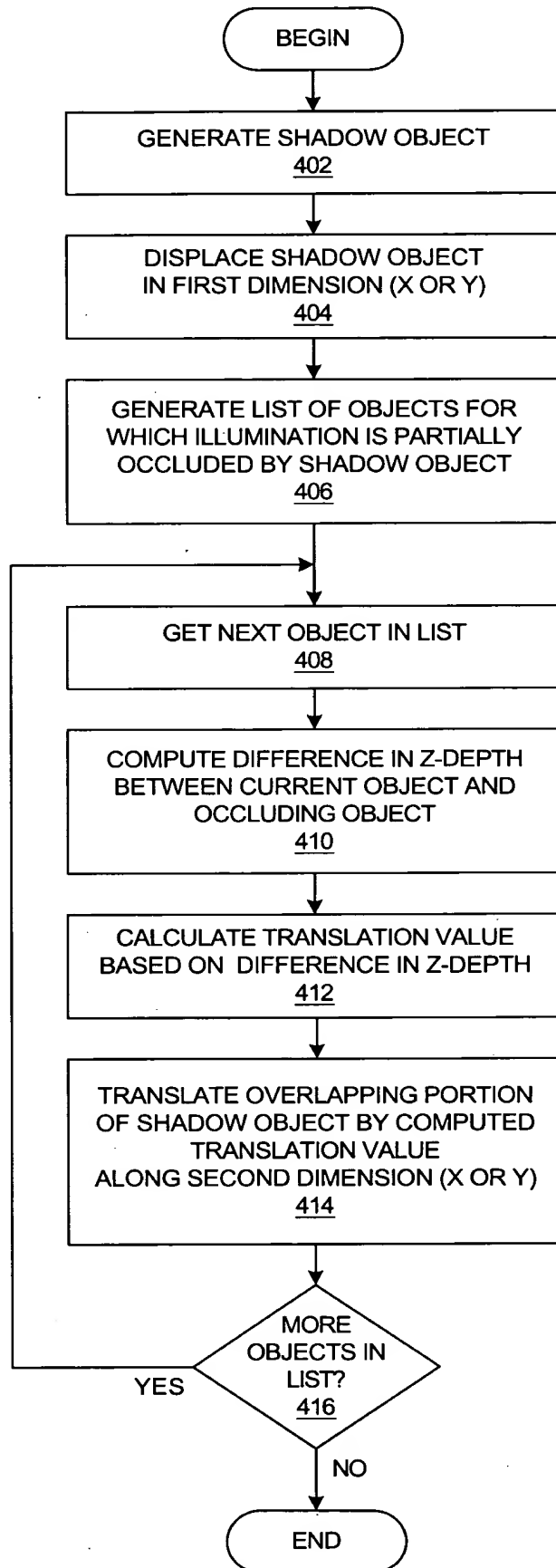402

DISPLACE SHADOW OBJECT
IN FIRST DIMENSION (X OR Y)
404

GENERATE LIST OF OBJECTS FOR
WHICH ILLUMINATION IS PARTIALLY
OCCLUDED BY SHADOW OBJECT
406

GET NEXT OBJECT IN LIST
408

COMPUTE DIFFERENCE IN Z-DEPTH
BETWEEN CURRENT OBJECT AND
OCCLUDING OBJECT
410

CALCULATE TRANSLATION VALUE
BASED ON DIFFERENCE IN Z-DEPTH
412

TRANSLATE OVERLAPPING PORTION
OF SHADOW OBJECT BY COMPUTED
TRANSLATION VALUE
ALONG SECOND DIMENSION (X OR Y)
414

MORE
OBJECTS IN
LIST?
416

YES

NO

END

FIG. 3D